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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/848,906	PALECEK ET AL.	
	Examiner	Art Unit	
	CAMQUY TRUONG	2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 10 November 2008.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-21 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-21 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application

6) Other: _____.

DETAILED ACTION

1. Claims 1-21 are presented for examination.

claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 1-21 are rejected under 35 U.S.C 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The claim language in the following claim is not clearly understood:

- i. As to claim 1, lines 5-6, it is not clearly indicated whether "a plurality of client application" refers to "multiple clients" in lines 2-3.
- ii. As to claim 11, lines 5-8, it is not clearly understood what (it is impossible that step of generating couple to step of step of service request); Lines 5-8, it is not clearly understood how the "service request" is honoring with in database management system via I/O activity and computational activity, and " a data base management system" relates to "first and second thread pool", and as to the limitation of "means responsively coupled to said generating means for honoring said service request via said Input/Output activity and said computational activity, examiner interprets the limitation as client computer coupled to data base management system and will be considered as

such for the examination purposes; Lines 9-10, As to the limitation of “first thread pool means responsively coupled to said honoring means for handling said Input/Output activity”, examiner interprets the limitation as first thread pool handling the Input/output activity by storing the activity in to the pool and will be considered as such for the examination purposes; Lines 11-12, As to the limitation of “first thread pool means responsively coupled to said honoring means for handling said computational activity”, examiner interprets the limitation as first thread pool handling the computational activity by storing the computational activity in to the pool and will be considered as such for the examination purposes.

ii. As to claim 16, lines 6-9, it is not clearly understood how “ a first thread pool” and “a second thread pool” couple to “service application” (i.e. a first thread pool and a second thread pool interact with service application). As to the limitation of “a first thread pool and a second thread pool coupled to service application , examiner interprets the limitation as a first thread pool and a second thread pool interact to service application ... and will be considered as such for the examination purposes.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1, 3, 5-6, 8-11, 14-16, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable Robsman (U.S. 20030061279) in view of Choquier (U.S. 5951694).**

4. As to claim 1, Robsman teaches the invention substantially as claimed including: an apparatus for improving the efficiency of service request / response activity between multiple clients and multiple service applications with a complex computerized environment (improving performance request/response, the Web server times out client sessions when no requests have been received for a predefined time period, paragraph 6) comprising:

a. a client computer having at least one of a plurality of client applications which generate service requests (the server runs an operating system to handle communication interaction with client-based applications. The server operating system establishes the connection between the server and the client and allocates resources to handle requests from the client; paragraph 4. In order to send requests to server, client has to generate requests. Thus, It is inherently Robsman teaches a plurality of client applications which generate service requests);

- b. a hardware server having a service application responsively coupled to said plurality of client applications (The server runs an operating system to handle communication interaction with client-based applications; paragraph 4);
- c. a first service request requiring Input/Output activity and computational activity generated by a first one of said plurality of client transferred to said service application (The timeout logic of internet server include an I/O thread and worker thread to receive requests from client to assign the request the request to queue to wait for execution (I/O activity) and worker thread take it out of the queue and process it (computational activity); paragraph 55, and 57-58);
- d. a first thread (I/O thread) responsively coupled to said service application (the timeout logic of internet server include an I/O thread and worker thread; paragraph 55) which handles said Input/Output activity of said first service request (The I/O thread 60 forwards the request to a queue 62 where it awaits execution; paragraph 57); and
- e. a second thread (worker thread) responsively coupled to said service application (the timeout logic of internet server include an I/O thread and worker thread, Fig. 6; paragraph 57) which handles said computational activity of said first service request (The worker thread 64 retrieves the request from queue 62 and initially determines whether... execute the request, paragraphs 58-60).

5. Robsman teaches a first thread performs I/O activity and second thread performs computational activity but Robsman fails to explicitly teach a first thread pool or a first group of thread and a second thread pool or a second group of thread. However,

Choquier teaches a first thread pool or a first group of thread and a second thread pool or a second group of thread (a first pool 910 contains the threads 906 that are dedicated to SERVICE1.DLL, and a second pool 912 contains the threads that are dedicated to SERVICE2.DLL, col. 16, lines 48-53).

6. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Robsman to incorporate the teaching of a first thread pool or a first group of thread and a second thread pool or a second group of thread as taught by Choquier in order to gain the advantage of overhead is significantly reduced when server application communicate with client application.

7. As to claim 3, Robsman teaches a second one of said plurality of client applications generates a second service request (the server runs an operating system to handle communication interaction with client-based applications. The server operating system establishes the connection between the server and the client and allocates resources to handle requests from the client; paragraph 4. In order to send requests to server) to said service application requiring Input/Output activity (the internet server 36 receives a request from a remote client. The I/O thread 60 initially processes the request and may optionally assign the request to a particular session. The I/O thread 60 forwards the request to a queue 62 where it awaits execution; paragraph 57) and computational activity (The worker thread 64 retrieves the request from queue 62 and initially determines whether... execute the request, paragraphs 58-60).

8. As to claim 5, Choquier teaches a user terminal responsively coupled to a data base management system via a publically accessible digital data communication network (user access to database of the server by network, paragraph 10-13. database is created by using database management system); and
first client application is located within said user terminal (client portions (or "client applications") running on client microcomputers of end users, col. 1, lines 45-67)
said service application is located within said data base management system (service content data could be stored in a central data base which is accessible to all servers 120, col. 9, lines 66-67).
9. As to claim 6, it is rejected for the same reason as claim 1.
10. As to claim 8, Robsman teaches transferring said service request to said service application via a publically accessible digital data communication network (Fig. 1; the Internet server 36 receives a request from a remote client; paragraph 57).
11. As to claim 9, Choquier teaches a user terminal wherein said client application is located within said user terminal (client portions (or "client applications") running on client microcomputers of end users, col. 1, lines 45-67).
12. As to claim 10, Choquier teaches said service application is located within said

data base management system (Although service content data could be stored in a central data base which is accessible to all servers 120, col. 9, lines 66-67).

13. As to claim 11, the limitation of "means for generating a service request within a client computer requiring Input/Output activity and computation activity" invoke 35 U.S.C 112, sixth paragraph. Robsman teaches an apparatus comprising:

a. means for generating a service request within a client computer (the server runs an operating system to handle communication interaction with client-based applications. The server operating system establishes the connection between the server and the client and allocates resources to handle requests from the client; paragraph 4. In order to send requests to server, client has to generate requests) requiring Input/Output activity and computational activity (the application program generating the command, col. 7, lines 51-52; col. 10, lines 34-36);

b. means responsively coupled to said generating means for honoring said service request via said Input/Output activity and said computational activity (The timeout logic of internet server include an I/O thread and worker thread to receive requests from client to assign the request the request to queue to wait for execution (I/O activity) and worker thread take it out of the queue and process it (computational activity); paragraph 55, and 57-58);

c. first thread (I/O thread) means responsively coupled to said honoring (the timeout logic of internet server include an I/O thread and worker thread; paragraph 55)

means for handling said Input/Output activity (The I/O thread 60 forwards the request to a queue 62 where it awaits execution; paragraph 57); and

 d. second thread (worker thread) means responsively coupled to said honoring means for handling said computational activity (The worker thread 64 retrieves the request from queue 62 and initially determines whether... execute the request, paragraphs 58-60).

14. Robsman teaches a first thread performs I/O activity and second thread performs computational activity but Robsman fails to explicitly teach a first thread pool or a first group of thread and a second thread pool or a second group of thread. However, Choquier teaches a first thread pool or a first group of thread and a second thread pool or a second group of thread (a first pool 910 contains the threads 906 that are dedicated to SERVICE1.DLL, and a second pool 912 contains the threads that are dedicated to SERVICE2.DLL, col. 16, lines 48-53).

15. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Robsman to incorporate the teaching of a first thread pool or a first group of thread and a second thread pool or a second group of thread as taught by Choquier in order to gain the advantage of overhead is significantly reduced when server application communicate with client application.

16. As to claim 14, Choquier teaches honoring means further comprises a data base management system (data base system, col. 25, lines 43-45).

17. As to claim 15, Choquier teaches said generating means further comprises a user terminal (user's microcomputer 102, col. 14, lines 22-23).

18. As to claim 16, Robsman teaches in a data processing system having a client application which generates a service request requiring Input/Output activity and computational activity responsively coupled to a service application, the improvement comprising:

a. a first thread pool interactively coupled to said service application (the timeout logic of internet server include an I/O thread and worker thread; paragraph 55) for handling said Input/Output activity (The I/O thread 60 forwards the request to a queue 62 where it awaits execution; paragraph 57); and

b. a second thread pool interactively coupled to said service application (the timeout logic of internet server include an I/O thread and worker thread; paragraph 55) for handling said computational activity (the worker thread 64 retrieves the request from queue 62 and initially determines whether... execute the request, paragraphs 58-60).

19. As to claim 18, Choquier teaches a user terminal containing said client application (client application running on user's microcomputer 102, col. 14, lines 22-

23).

20. As to claim 19, Choquier teaches a publically accessible digital data communication network responsively coupled between user terminal and hardware server containing service application (Multiple client microcomputers 102 are connected to a host data center 104 (including a plurality of application server) by a wide area network (WAN) 106. The wide area network 106 includes WAN lines 108 which are provided by one or more telecommunications providers, and which allow end users (i.e., users the microcomputers 102) over a wide geographic area to access the host data center 104 via modem (col. 4, line 65 – col. 5, line 21).

21. As to claim 20, Choquier teaches said service application is located within said data base management system (service content data could be stored in a central data base which is accessible to all servers 120, col. 9, lines 66-67).

22. **Claims 2, 4, 7, 12-13, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable Robsman (U.S. 20030061279) in view of Choquier (U.S. 5951694), as applied to claims 1, 6, 11 and 16 above, and further in view of in view of Fotta et al. (U.S. 7,158,630).**

23. As to claims 2 and 4, Robsman and Choquier do not explicitly teach a first client key which uniquely identifies said first one of said plurality of client applications to said

first thread pool and said second thread pool. However, Fotta teaches a first client key which uniquely identifies said first one of said plurality of client applications to said first thread pool and said second thread pool (assigned a unique client key that identifies that client to the DNC gateways and servers, col. 10, lines 6-12).

24. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Robsman and Choquier to incorporate the teaching of a first client key which uniquely identifies said first one of said plurality of client applications to said first thread pool and said second thread pool; a second client key which uniquely identifies said second one of said plurality of client applications to said first thread as taught by Fotta because this allow provide a great deal of flexibility within the system for reporting, agent and office relocations, and fail-over between IVR gateways.

25. As to claims 7, 12-13 and 17, it is rejected for the same reason as claims 2 and 4.

26. **Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable Robsman (U.S. 20030061279) in view of Choquier (U.S. 5951694) and further in view of Fotta et al. (U.S. 7,158,630).**

27. As to claim 21, Robsman teaches the invention substantially as claimed including: An apparatus for improving the efficiency of service request / response activity between multiple clients and multiple service applications with a complex computerized environment (improving performance request/response, the Web server times out client sessions when no requests have been received for a predefined time period, paragraph 6) comprising:

- a. a plurality of client applications which generate a plurality of service requests (the server runs an operating system to handle communication interaction with client-based applications. The server operating system establishes the connection between the server and the client and allocates resources to handle requests from the client; paragraph 4. In order to send requests to server, client has to generate requests. Thus, It is inherently Robsman teaches a plurality of client applications which generate service requests);
- b. a service application responsively coupled to said plurality of client applications (the server runs an operating system to handle communication interaction with client-based applications, Paragraph 4)
- c. a first of said plurality of service requests requiring Input/Output activity and computational activity generated by a first one of said plurality of client applications transferred to said service application (The timeout logic of internet server include an I/O thread and worker thread to receive requests from client to assign the request the request to queue to wait for execution (I/O activity), and worker thread take it out of the queue and process it (computational activity); paragraph 55, and 57-58);

d. a first thread (I/O thread) responsively coupled to said service application (the timeout logic of internet server include an I/O thread and worker thread; paragraph 55) which handles said Input/Output activity of said first service request (The I/O thread 60 forwards the request to a queue 62 where it awaits execution; paragraph 57) ;

e. a second thread (worker thread) responsively coupled to said service application (the timeout logic of internet server include an I/O thread and worker thread; paragraph 55) which handles said computation activity of said first service request (The worker thread 64 retrieves the request from queue 62 and initially determines whether... execute the request, paragraphs 58-60);

g. wherein a second one of said plurality of client applications generates a second service request transferred to said service application requiring Input/Output activity and computational activity (The timeout logic of internet server include an I/O thread and worker thread to receive requests from client to assign the request the request to queue to wait for execution (I/O activity), and worker thread take it out of the queue and process it (computational activity); paragraph 55, and 57-58).

28. Robsman teaches a first thread performs I/O activity and second thread performs computational activity but Robsman fails to explicitly teach a first thread pool or a first group of thread and a second thread pool or a second group of thread; and a user terminal responsively coupled to a data base management system via a publically accessible digital data communication network and wherein first client application is

located within said user terminal and said service application is located within said data base management system first client application is located within said user terminal.

29. However, Choquier teaches a first thread pool or a first group of thread and a second thread pool or a second group of thread (a first pool 910 contains the threads 906 that are dedicated to SERVICE1.DLL, and a second pool 912 contains the threads that are dedicated to SERVICE2.DLL, col. 16, lines 48-53); and a user terminal responsively coupled to a data base management system via a publically accessible digital data communication network (user access to database of the server by network, paragraph 10-13. database is created by using database management system); and first client application is located within said user terminal (client portions (or "client applications") running on client microcomputers of end users, col. 1, lines 45-67) said service application is located within said data base management system (service content data could be stored in a central data base which is accessible to all servers 120, col. 9, lines 66-67).

30. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Robsman to incorporate the teaching of a first thread pool or a first group of thread and a second thread pool or a second group of thread as taught by Choquier in order to gain the advantage of overhead is significantly reduced when server application communicate with client application.

31. Robsman and Choquier do not explicitly teach a first client key which uniquely identifies said first one of said plurality of client applications to said first thread pool and said second thread pool. However, Fotta teaches a first client key which uniquely identifies said first one of said plurality of client applications to said first thread pool and said second thread pool (assigned a unique client key that identifies that client to the DNC gateways and servers, col. 10, lines 6-12).

32. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Robsman and Choquier to incorporate the teaching of a first client key which uniquely identifies said first one of said plurality of client applications to said first thread pool and said second thread pool; a second client key which uniquely identifies said second one of said plurality of client applications to said first thread as taught by Fotta because this allow provide a great deal of flexibility within the system for reporting, agent and office relocations, and fail-over between IVR gateways.

Response to the argument

23. Applicant's arguments filed 11/10/08 for claims 1-21 have been considered but are moot in view of the new ground(s) rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CAMQUY TRUONG whose telephone number is (571)272-3773. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng Ai An can be reached on (703)305-9678. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VAN H NGUYEN/
Primary Examiner, Art Unit 2194

Camquy Truong
July 28, 2008